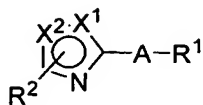


CLAIMS:

1. A thiazole derivative represented by the formula



or a pharmaceutically acceptable salt thereof,  
wherein:

X<sup>1</sup> and X<sup>2</sup> are different from each other and represent a sulfur atom or a carbon atom;

R<sup>1</sup> represents a phenyl group;

a phenyl group substituted with 1 to 5 members selected from the group consisting of halogen atoms, alkyl groups having 1 to 6 carbon atoms, alkoxy groups having 1 to 6 carbon atoms, a hydroxy group, phenylalkoxy groups having 7 to 12 carbon atoms, and alkylamino groups having 1 to 6 carbon atoms;

a phenyl group condensed with a 5 to 7 membered hetero aromatic or non-aromatic ring having at least one hetero atom selected from the group consisting of N, O, and S;

a pyridyl group;

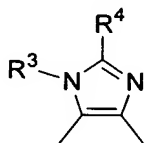
a quinolyl group;

an isoquinolyl group; or

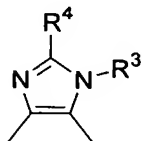
a pyridyl group condensed with a 5 to 7 membered hetero aromatic ring having at least one hetero atom selected from the group consisting of N, O,

and S;

R<sup>2</sup> represents a hydrogen atom, a halogen atom, an alkyl group having 1 to 6 carbon atoms, an alkyl group having 1 to 6 carbon atoms substituted with 1 to 5 halogen atoms, an alkoxy group having 1 to 6 carbon atoms, an alkanoyl group having 1 to 6 carbon atoms, or a hydroxyalkyl group having 1 to 5 carbon atoms; and A represents a group which is represented by the formula



or



wherein:

R<sup>3</sup> represents a hydrogen atom;

a hydroxy group;

an alkyl group having 1 to 6 carbon atoms;

a phenylalkyl group having 7 to 12 carbon atoms; or

a phenylalkyl group having 7 to 12 carbon atoms, substituted with a hydroxy group, an alkoxy group having 1 to 6 carbon atoms, an alkoxy group

having 1 to 6 carbon atoms substituted with an alkoxy group having 1 to 6 carbon atoms, or an alkoxy group having 1 to 6 carbon atoms substituted with an alkylamino group having 1 to 6 carbon atoms,  $R^4$  represents a phenyl group;

a phenyl group substituted with 1 to 5 members selected from the group consisting of halogen atoms, alkyl groups having 1 to 6 carbon atoms, alkoxy groups having 1 to 6 carbon atoms, a carbamoyl group, and a cyano group;

a hydrogen atom;

an alkyl group having 1 to 12 carbon atoms;

an alkenyl group having 2 to 12 carbon atoms;

a cycloalkyl group having 3 to 7 carbon atoms;

an alkyl group having 1 to 12 carbon atoms substituted with an alkoxy group having 1 to 6 carbon atoms, a hydroxy group, an alkoxyphenylalkoxy group having 8 to 12 carbon atoms, a phthalimidoyl group, a toluenesulfonyloxy group, or a morpholino group;

an alkyl group having 1 to 6 carbon atoms substituted with 1 to 5 halogen atoms;

a cycloalkyl group having 3 to 9 carbon atoms substituted with an oxo group;

a tetrahydropyranyl group;

a 4-piperidinyl group;

a piperidinyl group substituted with an alkyl group having 1 to 6 carbon atoms or a t-butoxycarbonyl

group;

a cyclohexanespiro-2'-(1,3-dioxoranyl) group;

a pyrrolidin-2-one-5-yl group;

a group represented by the formula  $-Y^1-Z^1-NR^5-Z^2-Y^2-R^6$ ,

wherein:

$Y^1$  and  $Y^2$  are the same or different from each other and represent a single bond or an alkylene group having 1 to 12 carbon atoms;

$R^5$  represents a hydrogen atom or an alkyl group having 1 to 12 carbon atoms;

$Z^1$  and  $Z^2$  are the same or different from each other and represent a single bond;

an alkylene group having 1 to 7 carbon atoms;

-CO-;

-CO<sub>2</sub>-;

-SO<sub>2</sub>-; or

-OCO-, and

$R^6$  represents

a cycloalkyl group having 3 to 7 carbon atoms;

an alkyl group having 1 to 6 carbon atoms substituted with 1 to 3 halogen atoms;

an alkenyl group having 2 to 6 carbon atoms;

an alkynyl group having 2 to 6 carbon atoms;

an amino group;

an amino group substituted with 1 to 2 groups selected from the group consisting of an alkyl group

having 1 to 6 carbon atoms, a cycloalkyl group having 3 to 7 carbon atoms, and a t-butoxycarbonyl group;

a piperidino group;

a piperidinyl group;

a piperidinyl group substituted with an alkyl group having 1 to 6 carbon atoms;

a pyrrolidinyl group;

a piperazinyl group;

a piperazinyl group substituted with an alkyl group having 1 to 6 carbon atoms;

a morpholino group;

a hydroxy group;

an alkoxy group having 1 to 6 carbon atoms;

an alkoxy group having 1 to 6 carbon atoms substituted by a hydroxy group or an alkoxy group having 1 to 6 carbon atoms;

an oxetan-2-yl group;

a tetrahydrofuranyl group;

a tetrahydropyranyl group;

a hydrogen atom;

a phenyl group;

a phenyl group substituted with an alkoxy group having 1 to 4 carbon atoms; or

a group that forms a ring when linked to the nitrogen atom of the above formula; or

a group represented by the formula  $-Y^3-CO-R^{41}$ ,  
wherein:

$Y^3$  represents a single bond or an alkylene

group having 1 to 7 carbon atoms,

R<sup>41</sup> represents

a hydroxy group;

an alkoxy group having 1 to 6 carbon atoms;

a piperidino group;

a piperazin-1-yl group substituted by an alkyl group having 1 to 6 carbon atoms, a morpholinoalkyl group having 5 to 10 carbon atoms, or an alkylaminoalkyl group having 2 to 14 carbon atoms; or

a morpholino group.

2. The thiazole derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R<sup>2</sup> is a hydrogen atom, a halogen atom, an alkyl group having 1 to 6 carbon atoms or an alkyl group having 1 to 6 carbon atoms substituted with 1 to 5 halogen atoms.

3. The thiazole derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R<sup>2</sup> is an alkyl group having 1 to 6 carbon atoms or a trifluoromethyl group.

4. The thiazole derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R<sup>2</sup> is a methyl group or a trifluoromethyl group.

5. The thiazole derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 4, wherein R<sup>1</sup> is a phenyl group condensed with a 5 to 7 membered hetero aromatic or non-aromatic ring

containing at least one hetero atom selected from the group consisting of N, O, and S.

6. The thiazole derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 5, wherein  $X^1$  is a sulfur atom and  $X^2$  is a carbon atom.

7. An ALK5 inhibitor having, as an active ingredient, the thiazole derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 6.

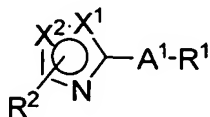
8. The ALK5 inhibitor according to claim 7, which is a therapeutic agent for glomerulonephritis, diabetic nephropathy, hepatic fibrosis, liver cirrhosis, pulmonary fibrosis, proliferative vitreoretinopathy, or alopeciarosis, or a hair growth agent.

9. The ALK5 inhibitor according to claim 7 or 8, which is an external medicine.

10. A hair follicle proliferation stimulant, having an ALK5 inhibitor as an active constituent.

11. A hair growth stimulant or a hair growth agent, having an ALK5 inhibitor as an active ingredient.

12. A thiazole derivative represented by the formula



or a pharmaceutically acceptable salt thereof,

wherein:

X<sup>1</sup> and X<sup>2</sup> are different from each other and represent a sulfur atom or a carbon atom;

R<sup>1</sup> represents a phenyl group;

a phenyl group substituted by 1 to 5 members selected from the group consisting of halogen atoms, alkyl groups having 1 to 6 carbon atoms, alkoxy groups having 1 to 6 carbon atoms, a hydroxy group, phenylalkoxy groups having 7 to 12 carbon atoms, and alkylamino groups having 1 to 6 carbon atoms;

a phenyl group condensed with a 5 to 7 membered hetero aromatic or non-aromatic ring having at least one hetero atom selected from the group consisting of N, O, and S;

a pyridyl group;

a quinolyl group;

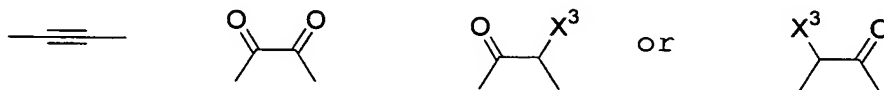
an isoquinolyl group; or

a pyridyl group condensed with a 5 to 7 membered hetero aromatic ring having at least one hetero atom selected from the group consisting of N, O, and S;

R<sup>2</sup> represents a hydrogen atom, a halogen atom, an alkyl group having 1 to 6 carbon atoms, an alkyl group having 1 to 6 carbon atoms substituted with 1 to 5 halogen atoms, an alkoxy group having 1 to 6 carbon atoms, an alkanoyl group having 1 to 6 carbon atoms, or a



hydroxyalkyl group having 1 to 5 carbon atoms; and  
 $A^1$  represents a group which is represented by the  
 formula



wherein  $X^3$  represents a hydrogen atom, a halogen atom,  
 or an alkyl group having 1 to 6 carbon atoms.